Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAJDA1614

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1 Web Page for STN Seminar Schedule - N. America
NEWS 2 JAN 02 STN pricing information for 2008 now available
NEWS 3 JAN 16 CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 4 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 5 JAN 28 MARPAT searching enhanced
NEWS 6 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication
NEWS 7 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 8 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements
NEWS 9 FEB 08 STN Express, Version 8.3, now available
NEWS 10 FEB 20 PCI now available as a replacement to DPCI
NEWS 11 FEB 25 IFIREF reloaded with enhancements
NEWS 12 FEB 25 IMSPRODUCT reloaded with enhancements
NEWS 13 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS 14 MAR 31 IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS 15 MAR 31 CAS REGISTRY enhanced with additional experimental spectra
NEWS 16 MAR 31 CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS 17 MAR 31 LPCI now available as a replacement to LDPCI
NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19 APR 04 STN AnaVist, Version 1, to be discontinued
NEWS 20 APR 15 WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

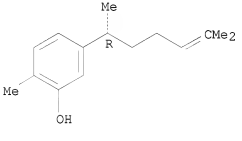
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

```
FILE 'HOME' ENTERED AT 09:08:43 ON 25 APR 2008

=> FIL REGISTRY
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'REGISTRY' ENTERED AT 09:08:59 ON 25 APR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   23 APR 2008  HIGHEST RN 1016892-81-1
DICTIONARY FILE UPDATES:  23 APR 2008  HIGHEST RN 1016892-81-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> E "XANTHORRHIZOL"/CN 25
E1            1     XANTHORIN 8-METHYL ETHER/CN
E2            1     XANTHORIN TRIMETHYL ETHER/CN
E3            1     XANTHORRHIZOL/CN
E4            1     XANTHORRHIZOL METHYL ETHER/CN
E5            1     XANTHORRHOEIN/CN
E6            1     XANTHORRHOEOL/CN
E7            1     XANTHORRHOEOL, ACETATE/CN
E8            1     XANTHORRHOEOL, METHYL ETHER/CN
E9            1     XANTHORRHOEOL, SEMICARBAZONE/CN
E10           1     XANTHORRHONE/CN
E11           1     XANTHORRHONE, 14-HYDROXY-/CN
E12           2     XANTHOSIDERITE/CN
E13           1     XANTHOSINE/CN
E14           1     XANTHOSINE 3',5'-MONOPHOSPHATE/CN
E15           1     XANTHOSINE 5'-(B,Γ-IMIDO)TRIPHOSPHATE/CN
E16           1     XANTHOSINE 5'-(B,Γ-METHYLENE)TRIPHOSPHATE/CN
E17           1     XANTHOSINE 5'-(PENTAHYDROGEN TETRAPHOSPHATE),
P'''.FWDARW.5'-ESTER WITH ADENOSINE/CN
E18           1     XANTHOSINE 5'-(PENTAHYDROGEN TETRAPHOSPHATE),
P'''.FWDARW.5'-ESTER WITH URIDINE/CN
E19           1     XANTHOSINE 5'-(PENTAHYDROGEN TETRAPHOSPHATE),
P'''.FWDARW.5'-ESTER WITH XANTHOSINE/CN
E20           1     XANTHOSINE 5'-(TETRAHYDROGEN TRIPHOSPHATE)/CN
E21           1     XANTHOSINE 5'-(TETRAHYDROGEN TRIPHOSPHATE), 2'(OR
3')-(2-(METHYLAMINO)BENZOATE)/CN
E22           1     XANTHOSINE 5'-(TETRAHYDROGEN TRIPHOSPHATE), 2',3'-DIDEOXY-/CN
E23           1     XANTHOSINE 5'-(TETRAHYDROGEN TRIPHOSPHATE),
2',3'-DIDEOXY-8-METHYL-/CN
```

```
E24             1     XANTHOSINE 5'-(TETRAHYDROGEN TRIPHOSPHATE), 2'-DEOXY-/CN
E25             1     XANTHOSINE 5'-(TETRAHYDROGEN TRIPHOSPHATE), 6-THIO-/CN

=> S E3
L1              1 XANTHORRHIZOL/CN

=> S L1 EXA SAM
SAMPLE IS IGNORED AS A SCOPE FOR THIS SEARCH
L2              1 XANTHORRHIZOL/CN

=> DIS L2 1

L2   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   30199-26-9  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl-  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   o-Cresol, 5-(1,5-dimethyl-4-hexenyl)-, (-)- (8CI)
CN   Phenol, 5-(1,5-dimethyl-4-hexenyl)-2-methyl-, (R)-
CN   Phenol, 5-[(1R)-1,5-dimethyl-4-hexenyl]-2-methyl- (9CI)
OTHER NAMES:
CN   (-)-Xanthorrhizol
CN   (-)-Xanthorrizol
CN   (R)-(-)-Xanthorrhizol
CN   (R)-(-)-Xanthorrizol
CN   (R)-5-(1,5-Dimethyl-4-hexenyl)-o-cresol
CN   Xanthorrhizol
FS   STEREOSEARCH
MF   C15 H22 O
CI   COM
LC   STN Files:   AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT,
       CHEMLIST, DDFU, DRUGU, IMSDRUGNEWS, IMSRESEARCH, IPA, NAPRALERT, PROMT,
       RTECS*, SPECINFO, TOXCENTER, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   EINECS**
         (**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.
```




```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

             104 REFERENCES IN FILE CA (1907 TO DATE)
             104 REFERENCES IN FILE CAPLUS (1907 TO DATE)


=> file medline caplus wpids uspatfull
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
```

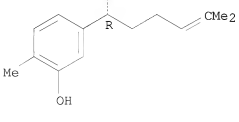
```
FULL ESTIMATED COST                                    12.76      12.97

FILE 'MEDLINE' ENTERED AT 09:09:39 ON 25 APR 2008

FILE 'CAPLUS' ENTERED AT 09:09:39 ON 25 APR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 09:09:39 ON 25 APR 2008
COPYRIGHT (C) 2008 THE THOMSON CORPORATION

FILE 'USPATFULL' ENTERED AT 09:09:39 ON 25 APR 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

=> s l2
L3         122 L2

=> s l3 and (cancer or tumor)
L4          15 L3 AND (CANCER OR TUMOR)

=> s l4 and platinum
L5           1 L4 AND PLATINUM

=> d l5

L5   ANSWER 1 OF 1  USPATFULL on STN
AN     2006:175458  USPATFULL
TI     Supressant of toxicity induced by cancer chemotherapeutic
       agent and composition of cancer chemotherapeutic agent
       containing the same
IN     Park, Kwang-Kyun, Seoul, KOREA, REPUBLIC OF
       Chung, Won-Yoon, Seoul, KOREA, REPUBLIC OF
       Hong, Gyoung-Ok, Seoul, KOREA, REPUBLIC OF
       Hwang, Jac-Kwan, Gyeonggi-do, KOREA, REPUBLIC OF
PI     US 2006148908       A1  20060706
AI     US 2004-562412      A1  20040624 (10)
       WO 2004-KR1526          20040624
                               20051223  PCT 371 date
PRAI   KR 2003-40937       20030624
DT     Utility
FS     APPLICATION
LN.CNT 744
INCL   INCLM: 514/733.000
       INCLS: 514/492.000; 424/649.000
NCL    NCLM:  514/733.000
       NCLS:  424/649.000; 514/492.000
IC     IPCI   A61K0031-05 [I,A]; A61K0031-045 [I,C*]; A61K0031-28 [I,A];
              A61K0033-24 [I,A]
       IPCR   A61K0031-045 [I,C]; A61K0031-05 [I,A]; A61K0031-045 [I,A];
              A61K0031-28 [I,C]; A61K0031-28 [I,A]; A61K0031-555 [I,C*];
              A61K0031-555 [I,A]; A61K0033-24 [I,C]; A61K0033-24 [I,A];
              A61K0045-00 [I,C*]; A61K0045-06 [I,A]
CAS INDEXING IS AVAILABLE FOR THIS PATENT.


=> s l4 and cisplatin
L6           5 L4 AND CISPLATIN

=> d l6 1-5 ibib, abs, hitstr

L6   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2008 ACS on STN
```

ACCESSION NUMBER: 2005:1337384 CAPLUS
DOCUMENT NUMBER: 144:100890
TITLE: Antioxidant and antiinflammatory activities of xanthorrhizol in hippocampal neurons and primary cultured microglia
AUTHOR(S): Lim, Chol Seung; Jin, Da-Qing; Mok, Hyejung; Oh, Sang Jin; Lee, Jung Uk; Hwang, Jae Kwan; Ha, Ilho; Han, Jung-Soo
CORPORATE SOURCE: Drug Discovery Research Division, Hanwha CC R and D Center, Daejeon, S. Korea
SOURCE: Journal of Neuroscience Research (2005), 82(6), 831-838
CODEN: JNREDK; ISSN: 0360-4012
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Xanthorrhizol, a natural sesquiterpenoid isolated from the rhizome of Curcuma xanthorrhiza Roxb (Zingiberaceae), has antibacterial activities and protective effects against cisplatin-induced hepatotoxicity. In this study, we investigated the activities of xanthorrhizol as an antioxidant or antiinflammatory agent using neuronal and microglial cells. Xanthorrhizol had potent neuroprotective effects on glutamate-induced neurotoxicity and reactive oxygen species (ROS) generation in the murine hippocampal HT22 cell line. Also, xanthorrhizol inhibited H2O2-induced lipid peroxidn. in rat brain homogenates. The properties of xanthorrhizol as an antiinflammatory agent were investigated in microglial activation by lipopolysaccharide. It reduced the expression of cyclooxygenase-2 and the inducible nitric oxide synthase, which consequently resulted in the reduction of nitric oxide. The production of proinflammatory cytokines, such as interleukin-6 and tumor necrosis factor-α in activated microglial cells, was reduced by xanthorrhizol. These results suggest that xanthorrhizol could be an effective candidate for the treatment of Alzheimer's disease- and other neurol. disease-related ROS and inflammation.

IT 30199-26-9P, Xanthorrhizol
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(antioxidant and antiinflammatory activities of xanthorrhizol in hippocampal neurons and primary cultured microglia)
RN 30199-26-9 CAPLUS
CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:333243 CAPLUS
DOCUMENT NUMBER: 143:90902

TITLE: Phosphorylation of c-Jun N-terminal Kinases (JNKs) is involved in the preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity

AUTHOR(S): Hong, Kyoung Ok; Hwang, Jae Kwan; Park, Kwang-Kyun; Kim, Seong Hwan

CORPORATE SOURCE: Department of Oral Biology, College of Dentistry, Yonsei University, Seoul, 120-749, S. Korea

SOURCE: Archives of Toxicology (2005), 79(4), 231-236
CODEN: ARTODN; ISSN: 0340-5761

PUBLISHER: Springer GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

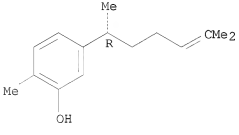
AB Cisplatin is a potent anti-cancer chemotherapeutic agent but has the undesirable side effect of hepatotoxicity at high doses. In a previous study, abrogation of cisplatin-induced hepatotoxicity by pretreatment with xanthorrhizol was observed in mice, but the mechanism has not yet been studied. We therefore investigated whether the protective effect of xanthorrhizol on cisplatin-induced hepatotoxicity is associated with the mitogen-activated protein (MAP) kinase-signaling pathway. Cisplatin caused phosphorylation of both c-Jun N-terminal kinases 1/2 (JNK1/2) and the extracellular signal-regulated kinase 1/2 (ERK1/2), but not that of p38. However, cisplatin-induced phosphorylation of JNKs, especially JNK1, was highly attenuated by pretreatment with xanthorrhizol in a dose-dependent manner. This study suggested that the phosphorylation of JNKs could be involved in the protective effect of xanthorrhizol on cisplatin-induced hepatotoxicity and it also affects gene transcription by regulating the expression of transcription factor subunits such as c-fos and p50 in part. In addition, considering that the expression of both cytochrome c and caspase-9 were not changed in this model, its mechanism might be independent of mitochondria-related apoptosis. This is the first report giving evidence that the physiol. function of xanthorrhizol is linked to regulation of the phosphorylation of JNK(s).

IT 30199-26-9, Xanthorrhizol
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(c-Jun N-terminal Kinase role in preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity)

RN 30199-26-9 CAPLUS

CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1156473 CAPLUS

DOCUMENT NUMBER: 142:86624

TITLE: Composition containing toxic cancer chemotherapeutic agent and a suppressant of toxicity

INVENTOR(S): Park, Kwang-Kyun; Chung, Won-Yoon; Hong, Gyoung-Ok; Hwang, Jae-Kwan
PATENT ASSIGNEE(S): Biocare Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004112764	A1	20041229	WO 2004-KR1526	20040624
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2005001392	A	20050106	KR 2004-47368	20040624
CN 1842326	A	20061004	CN 2004-80024279	20040624
JP 2007521260	T	20070802	JP 2006-516944	20040624
US 20060148908	A1	20060706	US 2005-562412	20051223

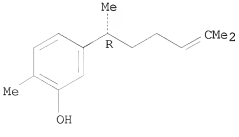
PRIORITY APPLN. INFO.: KR 2003-40937 A 20030624
WO 2004-KR1526 W 20040624

AB Disclosed are a suppressant of toxicity such as hepatotoxicity and nephrotoxicity, induced by cancer chemotherapeutic agent, and a composition of cancer chemotherapeutic agent containing the suppressant. The suppressant of toxicity induced by a cancer chemotherapeutic agent contains xanthorrhizol as an active ingredient. Xanthorrhizol shows an excellent ability in suppressing ill effects generated by dosage of cancer chemotherapeutic agent, such as hepatotoxicity and nephrotoxicity.

IT 30199-26-9, Xanthorrhizol
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(composition containing toxic cancer chemotherapeutic agent and toxicity suppressant agent)

RN 30199-26-9 CAPLUS
CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



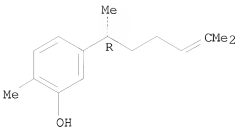
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:317353 CAPLUS
DOCUMENT NUMBER: 140:417878
TITLE: Abrogation of cisplatin-induced hepatotoxicity in mice by xanthorrhizol is related to its effect on the regulation of gene transcription
AUTHOR(S): Kim, Seong Hwan; Hong, Kyoung Ok; Chung, Won-Yoon; Hwang, Jae Kwan; Park, Kwang-Kyun
CORPORATE SOURCE: Brain Korea 21 project for Medical Science, Yonsei University, Seoul, 120-752, S. Korea
SOURCE: Toxicology and Applied Pharmacology (2004), 196(3), 346-355
CODEN: TXAPA9; ISSN: 0041-008X
PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cisplatin is a widely used anticancer drug, but at high dose, it can produce undesirable side effects such as hepatotoxicity. Because Curcuma xanthorrhiza Roxb. (Zingiberaceae) has been traditionally used to treat liver disorders, the protective effect of xanthorrhizol, which is isolated from C. xanthorrhiza, on cisplatin-induced hepatotoxicity was evaluated in mice. The pretreatment of xanthorrhizol (200 mg/kg/day, po) for 4 days prevented the hepatotoxicity induced by cisplatin (45 mg/kg, i.p.) with statistical significance. Interestingly, it abrogated cisplatin-induced DNA-binding activity of nuclear factor-kappaB (NF-κB), which consequently affected mRNA expression levels of NF-κB-dependent genes, inducible nitric oxide synthase (iNOS), and cyclooxygenase-2 (COX-2), even in part. It also attenuated the cisplatin-suppressed DNA-binding activity of activator protein 1 (AP-1). Using differential display reverse transcription-polymerase chain reaction (DDRT-PCR), seven upregulated genes including S100 calcium binding protein A9 (S100A9) mRNA and antigenic determinant for rec-A protein mRNA and five downregulated genes including caseinolytic protease X (ClpX) mRNA and ceruloplasmin (CP) mRNA by cisplatin were identified. Although these mRNA expression patterns were not totally consistent with gel shift patterns, altered expression levels by cisplatin were reversed by the pretreatment of xanthorrhizol. In conclusion, the ability of xanthorrhizol to regulate the DNA-binding activities of transcription factors, NF-κB and AP-1, could be one possible mechanism to elucidate the preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity. Furthermore, genes identified in this study could be helpful to understand the mechanism of cisplatin-induced hepatotoxicity. Finally, the combination treatment of xanthorrhizol and cisplatin may provide more advantage than single treatment of cisplatin in cancer therapy.

IT 30199-26-9, Xanthorrhizol
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(xanthorrhizol abrogation of cisplatin-induced hepatotoxicity is related to its effect on regulation of gene transcription)
RN 30199-26-9 CAPLUS
CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 5 USPATFULL on STN
ACCESSION NUMBER: 2006:175458 USPATFULL
TITLE: Supressant of toxicity induced by cancer chemotherapeutic agent and composition of cancer chemotherapeutic agent containing the same
INVENTOR(S): Park, Kwang-Kyun, Seoul, KOREA, REPUBLIC OF
Chung, Won-Yoon, Seoul, KOREA, REPUBLIC OF
Hong, Gyoung-Ok, Seoul, KOREA, REPUBLIC OF
Hwang, Jac-Kwan, Gyeonggi-do, KOREA, REPUBLIC OF

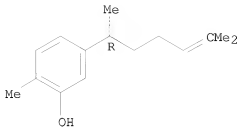
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2006148908	A1	20060706	
APPLICATION INFO.:	US 2004-562412	A1	20040624	(10)
	WO 2004-KR1526		20040624	
			20051223	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	KR 2003-40937	20030624

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: JONES DAY, 222 EAST 41ST ST, NEW YORK, NY, 10017, US
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 744
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are a suppressant of toxicity such as hepatotoxicity and nephrotoxicity, induced by cancer chemotherapeutic agent, and a composition of cancer chemotherapeutic agent containing the suppressant. The suppressant of toxicity induced by a cancer chemotherapeutic agent contains xanthorrhizol as an active ingredient. Xanthorrhizol shows an excellent ability in suppressing ill effects generated by dosage of cancer chemotherapeutic agent, such as hepatotoxicity and nephrotoxicity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 30199-26-9, Xanthorrhizol
(composition containing toxic cancer chemotherapeutic agent and toxicity suppressant agent)
RN 30199-26-9 USPATFULL
CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.




```
=> d his

     (FILE 'HOME' ENTERED AT 09:08:43 ON 25 APR 2008)

     FILE 'REGISTRY' ENTERED AT 09:08:59 ON 25 APR 2008
                E "XANTHORRHIZOL"/CN 25
L1             1 S E3
L2             1 S L1 EXA SAM

     FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 09:09:39 ON 25 APR
     2008
L3           122 S L2
L4            15 S L3 AND (CANCER OR TUMOR)
L5             1 S L4 AND PLATINUM
L6             5 S L4 AND CISPLATIN

=> s l3 and (cisplatin or carboplatin or oxaliplatin or nedaplatin)
L7             7 L3 AND (CISPLATIN OR CARBOPLATIN OR OXALIPLATIN OR NEDAPLATIN)

=> d l7 1-7 ibib, abs, hitstr

L7   ANSWER 1 OF 7  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2005:1337384  CAPLUS
DOCUMENT NUMBER:          144:100890
TITLE:                    Antioxidant and antiinflammatory activities of
                          xanthorrhizol in hippocampal neurons and primary
                          cultured microglia
AUTHOR(S):                Lim, Chol Seung; Jin, Da-Qing; Mok, Hyejung; Oh, Sang
                          Jin; Lee, Jung Uk; Hwang, Jae Kwan; Ha, Ilho; Han,
                          Jung-Soo
CORPORATE SOURCE:         Drug Discovery Research Division, Hanwha CC R and D
                          Center, Daejeon, S. Korea
SOURCE:                   Journal of Neuroscience Research (2005), 82(6),
                          831-838
                          CODEN: JNREDK; ISSN: 0360-4012
PUBLISHER:                Wiley-Liss, Inc.
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Xanthorrhizol, a natural sesquiterpenoid isolated from the rhizome of
     Curcuma xanthorrhiza Roxb (Zingiberaceae), has antibacterial activities
     and protective effects against cisplatin-induced hepatotoxicity.
     In this study, we investigated the activities of xanthorrhizol as an
     antioxidant or antiinflammatory agent using neuronal and microglial cells.
     Xanthorrhizol had potent neuroprotective effects on glutamate-induced
     neurotoxicity and reactive oxygen species (ROS) generation in the murine
     hippocampal HT22 cell line.  Also, xanthorrhizol inhibited H2O2-induced
     lipid peroxidn. in rat brain homogenates.  The properties of xanthorrhizol
     as an antiinflammatory agent were investigated in microglial activation by
     lipopolysaccharide.  It reduced the expression of cyclooxygenase-2 and the
```

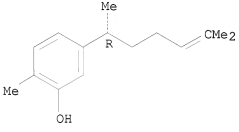
inducible nitric oxide synthase, which consequently resulted in the reduction of nitric oxide. The production of proinflammatory cytokines, such as interleukin-6 and tumor necrosis factor-α in activated microglial cells, was reduced by xanthorrhizol. These results suggest that xanthorrhizol could be an effective candidate for the treatment of Alzheimer's disease- and other neurol. disease-related ROS and inflammation.

IT 30199-26-9P, Xanthorrhizol
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(antioxidant and antiinflammatory activities of xanthorrhizol in hippocampal neurons and primary cultured microglia)

RN 30199-26-9 CAPLUS

CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:333243 CAPLUS

DOCUMENT NUMBER: 143:90902

TITLE: Phosphorylation of c-Jun N-terminal Kinases (JNKs) is involved in the preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity

AUTHOR(S): Hong, Kyoung Ok; Hwang, Jae Kwan; Park, Kwang-Kyun; Kim, Seong Hwan

CORPORATE SOURCE: Department of Oral Biology, College of Dentistry, Yonsei University, Seoul, 120-749, S. Korea

SOURCE: Archives of Toxicology (2005), 79(4), 231-236
CODEN: ARTODN; ISSN: 0340-5761

PUBLISHER: Springer GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cisplatin is a potent anti-cancer chemotherapeutic agent but has the undesirable side effect of hepatotoxicity at high doses. In a previous study, abrogation of cisplatin-induced hepatotoxicity by pretreatment with xanthorrhizol was observed in mice, but the mechanism has not yet been studied. We therefore investigated whether the protective effect of xanthorrhizol on cisplatin-induced hepatotoxicity is associated with the mitogen-activated protein (MAP) kinase-signaling pathway. Cisplatin caused phosphorylation of both c-Jun N-terminal kinases 1/2 (JNK1/2) and the extracellular signal-regulated kinase 1/2 (ERK1/2), but not that of p38. However, cisplatin-induced phosphorylation of JNKs, especially JNK1, was highly attenuated by pretreatment with xanthorrhizol in a dose-dependent manner. This study suggested that the phosphorylation of JNKs could be involved in the protective effect of xanthorrhizol on cisplatin-induced hepatotoxicity and it also affects gene transcription by regulating the

expression of transcription factor subunits such as c-fos and p50 in part. In addition, considering that the expression of both cytochrome c and caspase-9 were not changed in this model, its mechanism might be independent of mitochondria-related apoptosis. This is the first report giving evidence that the physiol. function of xanthorrhizol is linked to regulation of the phosphorylation of JNK(s).

IT 30199-26-9, Xanthorrhizol
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(c-Jun N-terminal Kinase role in preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity)

RN 30199-26-9 CAPLUS

CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1156473 CAPLUS
DOCUMENT NUMBER: 142:86624
TITLE: Composition containing toxic cancer chemotherapeutic agent and a suppressant of toxicity
INVENTOR(S): Park, Kwang-Kyun; Chung, Won-Yoon; Hong, Gyoung-Ok; Hwang, Jae-Kwan
PATENT ASSIGNEE(S): Biocare Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004112764	A1	20041229	WO 2004-KR1526	20040624
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2005001392	A	20050106	KR 2004-47368	20040624
CN 1842326	A	20061004	CN 2004-80024279	20040624
JP 2007521260	T	20070802	JP 2006-516944	20040624

US 20060148908 A1 20060706 US 2005-562412 20051223
PRIORITY APPLN. INFO.: KR 2003-40937 A 20030624
WO 2004-KR1526 W 20040624

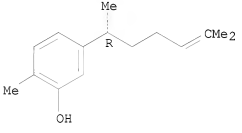
AB Disclosed are a suppressant of toxicity such as hepatotoxicity and nephrotoxicity, induced by cancer chemotherapeutic agent, and a composition of cancer chemotherapeutic agent containing the suppressant. The suppressant of toxicity induced by a cancer chemotherapeutic agent contains xanthorrhizol as an active ingredient. Xanthorrhizol shows an excellent ability in suppressing ill effects generated by dosage of cancer chemotherapeutic agent, such as hepatotoxicity and nephrotoxicity.

IT 30199-26-9, Xanthorrhizol
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(composition containing toxic cancer chemotherapeutic agent and toxicity suppressant agent)

RN 30199-26-9 CAPLUS

CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1043424 CAPLUS
DOCUMENT NUMBER: 142:148083
TITLE: Xanthorrhizol has a potential to attenuate the high dose cisplatin-induced nephrotoxicity in mice
AUTHOR(S): Kim, Seong Hwan; Hong, Kyoung Ok; Hwang, Jae Kwan; Park, Kwang-Kyun
CORPORATE SOURCE: Brain Korea 21 Project for Medical Science, Yonsei University, Seoul, Seodaemun-Gu, 120-752, S. Korea
SOURCE: Food and Chemical Toxicology (2005), 43(1), 117-122
CODEN: FCTOD7; ISSN: 0278-6915
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cisplatin is a widely used anticancer drug, but it can produce undesirable side effects such as nephrotoxicity. The present study investigated the effect of xanthorrhizol isolated from Curcuma xanthorrhiza Roxb. (Zingiberaceae) on cisplatin-induced nephrotoxicity in mice. A single dose of cisplatin (45 mg/kg, i.p.) significantly elevated the levels of blood urea nitrogen, serum creatinine, and the kidney to body weight ratio, but the pretreatment of xanthorrhizol (200 mg/kg/day, per os) for 4 days significantly attenuated the cisplatin-induced nephrotoxicity. The preventive effect of xanthorrhizol was more efficacious than that of curcumin with the same amount (200 mg/kg). However, this effect seemed not to be related with the ability of xanthorrhizol to regulate the DNA-binding activities of transcription factors such as nuclear factor-kappaB (NF-κB) and

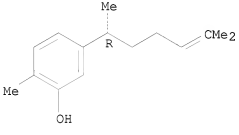
activator protein 1 (AP-1). This is first time the preventive effect of xanthorrhizol on cisplatin-induced nephrotoxicity was demonstrated, and these data suggest that the administration of xanthorrhizol is a promising approach in the treatment of nephrotoxicity caused by cisplatin.

IT 30199-26-9, Xanthorrhizol
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(xanthorrhizol attenuates cisplatin-induced nephrotoxicity in mice)

RN 30199-26-9 CAPLUS

CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:317353 CAPLUS

DOCUMENT NUMBER: 140:417878

TITLE: Abrogation of cisplatin-induced hepatotoxicity in mice by xanthorrhizol is related to its effect on the regulation of gene transcription

AUTHOR(S): Kim, Seong Hwan; Hong, Kyoung Ok; Chung, Won-Yoon; Hwang, Jae Kwan; Park, Kwang-Kyun

CORPORATE SOURCE: Brain Korea 21 project for Medical Science, Yonsei University, Seoul, 120-752, S. Korea

SOURCE: Toxicology and Applied Pharmacology (2004), 196(3), 346-355
CODEN: TXAPA9; ISSN: 0041-008X

PUBLISHER: Elsevier Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cisplatin is a widely used anticancer drug, but at high dose, it can produce undesirable side effects such as hepatotoxicity. Because Curcuma xanthorrhiza Roxb. (Zingiberaceae) has been traditionally used to treat liver disorders, the protective effect of xanthorrhizol, which is isolated from C. xanthorrhiza, on cisplatin-induced hepatotoxicity was evaluated in mice. The pretreatment of xanthorrhizol (200 mg/kg/day, po) for 4 days prevented the hepatotoxicity induced by cisplatin (45 mg/kg, i.p.) with statistical significance. Interestingly, it abrogated cisplatin-induced DNA-binding activity of nuclear factor-kappaB (NF-κB), which consequently affected mRNA expression levels of NF-κB-dependent genes, inducible nitric oxide synthase (iNOS), and cyclooxygenase-2 (COX-2), even in part. It also attenuated the cisplatin-suppressed DNA-binding activity of activator protein 1 (AP-1). Using differential display reverse transcription-polymerase chain reaction (DDRT-PCR), seven upregulated genes including S100 calcium binding protein A9 (S100A9) mRNA and antigenic determinant for rec-A protein mRNA and five downregulated genes

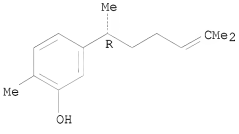
including caseinolytic protease X (ClpX) mRNA and ceruloplasmin (CP) mRNA by cisplatin were identified. Although these mRNA expression patterns were not totally consistent with gel shift patterns, altered expression levels by cisplatin were reversed by the pretreatment of xanthorrhizol. In conclusion, the ability of xanthorrhizol to regulate the DNA-binding activities of transcription factors, NF-κB and AP-1, could be one possible mechanism to elucidate the preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity. Furthermore, genes identified in this study could be helpful to understand the mechanism of cisplatin-induced hepatotoxicity. Finally, the combination treatment of xanthorrhizol and cisplatin may provide more advantage than single treatment of cisplatin in cancer therapy.

IT 30199-26-9, Xanthorrhizol
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(xanthorrhizol abrogation of cisplatin-induced hepatotoxicity is related to its effect on regulation of gene transcription)

RN 30199-26-9 CAPLUS

CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 7 USPATFULL on STN

ACCESSION NUMBER:	2006:227550 USPATFULL			
TITLE:	Crush resistant delayed-release dosage forms			
INVENTOR(S):	Ashworth, Judy, Wermelskirchen, GERMANY, FEDERAL REPUBLIC OF Arkenau Maric, Elisabeth, Koln, GERMANY, FEDERAL REPUBLIC OF Bartholomaus, Johannes, Aachen, GERMANY, FEDERAL REPUBLIC OF			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2006193914	A1	20060831	
APPLICATION INFO.:	US 2006-348295	A1	20060206	(11)
	NUMBER	DATE		
PRIORITY INFORMATION:	DE 2005-102005005544620050204			
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	PERMAN & GREEN, 425 POST ROAD, FAIRFIELD, CT, 06824, US			
NUMBER OF CLAIMS:	33			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	5 Drawing Page(s)			
LINE COUNT:	2689			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a dosage form comprising a physiologically effective amount of a physiologically active substance (A), a synthetic, semi-synthetic or natural polymer (C), optionally one or more physiologically acceptable auxiliary substances (B) and optionally a synthetic, semi-synthetic or natural wax (D), wherein the dosage form exhibits a resistance to crushing of at least 400 N and wherein under physiological conditions the release of the physiologically active substances (A) from the dosage form is at least partially delayed.

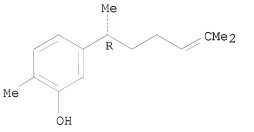
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 30199-26-9, Xanthorrhizol
(abuse-proofed dosage form)

RN 30199-26-9 USPATFULL

CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 7 OF 7 USPATFULL on STN

ACCESSION NUMBER:	2006:175458 USPATFULL		
TITLE:	Supressant of toxicity induced by cancer chemotherapeutic agent and composition of cancer chemotherapeutic agent containing the same		
INVENTOR(S):	Park, Kwang-Kyun, Seoul, KOREA, REPUBLIC OF Chung, Won-Yoon, Seoul, KOREA, REPUBLIC OF Hong, Gyoung-Ok, Seoul, KOREA, REPUBLIC OF Hwang, Jac-Kwan, Gyeonggi-do, KOREA, REPUBLIC OF		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006148908	A1	20060706
APPLICATION INFO.:	US 2004-562412	A1	20040624 (10)
	WO 2004-KR1526		20040624 20051223 PCT 371 date
	NUMBER	DATE	
PRIORITY INFORMATION:	KR 2003-40937	20030624	
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	JONES DAY, 222 EAST 41ST ST, NEW YORK, NY, 10017, US		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Page(s)		
LINE COUNT:	744		

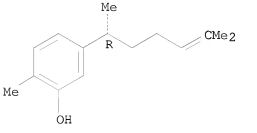
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are a suppressant of toxicity such as hepatotoxicity and nephrotoxicity, induced by cancer chemotherapeutic agent, and a composition of cancer chemotherapeutic agent containing the suppressant. The suppressant of toxicity induced by a cancer chemotherapeutic agent

contains xanthorrhizol as an active ingredient. Xanthorrhizol shows an excellent ability in suppressing ill effects generated by dosage of cancer chemotherapeutic agent, such as hepatotoxicity and nephrotoxicity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 30199-26-9, Xanthorrhizol
(composition containing toxic cancer chemotherapeutic agent and toxicity suppressant agent)
RN 30199-26-9 USPATFULL
CN Phenol, 5-[(1R)-1,5-dimethyl-4-hexen-1-yl]-2-methyl- (CA INDEX NAME)

Absolute stereochemistry.



=> d his

(FILE 'HOME' ENTERED AT 09:08:43 ON 25 APR 2008)

FILE 'REGISTRY' ENTERED AT 09:08:59 ON 25 APR 2008
E "XANTHORRHIZOL"/CN 25
L1 1 S E3
L2 1 S L1 EXA SAM

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 09:09:39 ON 25 APR 2008
L3 122 S L2
L4 15 S L3 AND (CANCER OR TUMOR)
L5 1 S L4 AND PLATINUM
L6 5 S L4 AND CISPLATIN
L7 7 S L3 AND (CISPLATIN OR CARBOPLATIN OR OXALIPLATIN OR NEDAPLATIN

=> d l4 1-15 ibib, abs

L4 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:724560 CAPLUS
DOCUMENT NUMBER: 147:63417
TITLE: Xanthorrhizol inhibits 12-O-tetradecanoylphorbol-13-acetate-induced acute inflammation and two-stage mouse skin carcinogenesis by blocking the expression of ornithine decarboxylase, cyclooxygenase-2 and inducible nitric oxide synthase through mitogen-activated protein kinases and/or the nuclear factor-κB
AUTHOR(S): Chung, Won Yoon; Park, Jae Hee; Kim, Mi Jeong; Kim, Heui Ok; Hwang, Jae Kwan; Lee, Sang Kook; Park, Kwang Kyun
CORPORATE SOURCE: Department of Oral Biology, Yonsei University College of Dentistry, Seoul, 120-752, S. Korea
SOURCE: Carcinogenesis (2007), 28(6), 1224-1231

CODEN: CRNGDP; ISSN: 0143-3334
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Xanthorrhizol is an active component isolated from Curcuma xanthorrhiza Roxb. (Zingiberaceae) that is traditionally used in Indonesia for medicinal purposes. In the present study, we found that the topical application of xanthorrhizol before 12-O-tetradecanoylphorbol-13-acetate (TPA) treatment significantly inhibits TPA-induced mouse ear edema and TPA-induced tumor promotion in 7,12-dimethylbenz[a]anthracene (DMBA)-initiated ICR mouse skin. The topical application of xanthorrhizol following the induction of papillomas with TPA-induced hyperplasia and dysplasia also reduced tumor multiplicity and incidence in DMBA-initiated mouse skin. To further elucidate the mol. mechanisms underlying the antitumor-promoting activity of xanthorrhizol, its effect on the TPA-induced expression of ornithine decarboxylase (ODC), cyclooxygenase-2 (COX-2) and inducible nitric oxide synthase (iNOS) and the upstream signaling mols. controlling these proteins were explored in mouse skin. The pre-treatment with xanthorrhizol inhibited the expression of ODC, iNOS and COX-2 proteins and nuclear factor-κB (NF-κB) activation in both mouse skin with TPA-induced acute inflammation and DMBA-initiated mouse skin promoted by TPA for 19 wk. When mouse skin was treated after TPA-induced production of papillomas, xanthorrhizol remarkably suppressed the expression of ODC, iNOS and COX-2 and inhibited the activation of NF-κB. Furthermore, western blot anal. showed that xanthorrhizol suppressed the activation of extracellular signal-regulated protein kinase, p38, c-Jun-N-terminal kinase and Akt in mice after topical application for 6 wk following the induction of papillomas. Taken together, the present study demonstrates that xanthorrhizol not only delays or inhibits tumor formation, but also reverses the carcinogenic process at premalignant stages by reducing the protein levels of ODC, iNOS and COX-2 regulated by the NF-κB, mitogen-activated protein kinases and/or Akt.
REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:506569 CAPLUS
DOCUMENT NUMBER: 147:63647
TITLE: Regulation of p53-, Bcl-2- and caspase-dependent signaling pathway in xanthorrhizol-induced apoptosis of HepG2 hepatoma cells
AUTHOR(S): Handayani, Tri; Sakinah, Sharifah; Nalappan, Meenakshii; Pihie, Azimahtol Hawariah
CORPORATE SOURCE: School of Biosciences and Biotechnology, Faculty of Science and Technology, National University of Malaysia, Selangor, 43600, Malay.
SOURCE: Anticancer Research (2007), 27(2), 965-971
CODEN: ANTRD4; ISSN: 0250-7005
PUBLISHER: International Institute of Anticancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Xanthorrhizol is a sesquiterpenoid compound extracted from the rhizome of Curcuma xanthorrhiza. This study investigated the antiproliferative effect and the mechanism of action of xanthorrhizol on human hepatoma cells, HepG2, and the mode of cell death. An antiproliferative assay using methylene blue staining revealed that xanthorrhizol inhibited the proliferation of the HepG2 cells with a 50% inhibition of cell growth (IC50) value of 4.17±0.053 μg/mL. The antiproliferative activity of xanthorrhizol was due to apoptosis induced in the HepG2 cells and not necrosis, which was confirmed by the Tdt-mediated dUTP nick end labeling (TUNEL) assay. The xanthorrhizol-treated HepG2 cells showed typical

apoptotic morphol. such as DNA fragmentation, cell shrinkage and elongated lamellipodial. The apoptosis mediated by xanthorrhizol in the HepG2 cells was associated with the activation of tumor suppressor p53 and down-regulation of antiapoptotic Bcl-2 protein expression, but not Bax. The levels of Bcl-2 protein expression decreased 24-h after treatment with xanthorrhizol and remained lower than controls throughout the experiment, resulting in a shift in the Bax to Bcl-2 ratio thus favoring apoptosis. The processing of the initiator procaspase-9 was detected. Caspase-3 was also found to be activated, but not caspase-7. Xanthorrhizol exerts antiproliferative effects on HepG2 cells by inducing apoptosis via the mitochondrial pathway.

REFERENCE COUNT: 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:97516 CAPLUS

DOCUMENT NUMBER: 146:266053

TITLE: Xanthorrhizol exhibits antiproliferative activity on MCF-7 breast cancer cells via apoptosis induction

AUTHOR(S): Cheah, Yew Hoong; Azimahtol, Hawariah Lope Pihie; Abdullah, Noor Rain

CORPORATE SOURCE: Bioassay Unit, Herbal Medicine Research Center, Institute for Medical Research, Kuala Lumpur, 50588, Malay.

SOURCE: Anticancer Research (2006), 26(6B), 4527-4534 CODEN: ANTRD4; ISSN: 0250-7005

PUBLISHER: International Institute of Anticancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Xanthorrhizol is a natural sesquiterpenoid compound isolated from the rhizome of Curcuma xanthorrhiza Roxb (Zingiberaceae). Xanthorrhizol was tested for a variety of important pharmacol. activities including antioxidant and anti-inflammatory activities. An antiproliferation assay using the MTT method indicated that xanthorrhizol inhibited the proliferation of the human breast cancer cell line, MCF-7, with an EC50 value of 1.71 μg/mL. Three parameters including annexin-V binding assay, Hoechst 33258 staining and accumulation of sub-G1 population in DNA histogram confirmed the apoptosis induction in response to xanthorrhizol treatment. Western-blotting revealed down-regulation of the anti-apoptotic bcl-2 protein expression. However, xanthorrhizol did not affect the expression of the pro-apoptotic protein, bax, at a concentration of 1 μg/mL, 2.5 μg/mL and 5 μg/mL. The level of p53 was greatly increased, while PARP-1 was cleaved to 85 kDa subunits, following the treatment with xanthorrhizol at a dose-dependent manner. These results, thereby, suggest that xanthorrhizol has antiproliferative effects on MCF-7 cells by inducing apoptosis through the modulation of bcl-2, p53 and PARP-1 protein levels.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1337384 CAPLUS

DOCUMENT NUMBER: 144:100890

TITLE: Antioxidant and antiinflammatory activities of xanthorrhizol in hippocampal neurons and primary cultured microglia

AUTHOR(S): Lim, Chol Seung; Jin, Da-Qing; Mok, Hyejung; Oh, Sang Jin; Lee, Jung Uk; Hwang, Jae Kwan; Ha, Ilho; Han, Jung-Soo

CORPORATE SOURCE: Drug Discovery Research Division, Hanwha CC R and D Center, Daejeon, S. Korea

SOURCE: Journal of Neuroscience Research (2005), 82(6), 831-838
CODEN: JNREDK; ISSN: 0360-4012
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Xanthorrhizol, a natural sesquiterpenoid isolated from the rhizome of Curcuma xanthorrhiza Roxb (Zingiberaceae), has antibacterial activities and protective effects against cisplatin-induced hepatotoxicity. In this study, we investigated the activities of xanthorrhizol as an antioxidant or antiinflammatory agent using neuronal and microglial cells. Xanthorrhizol had potent neuroprotective effects on glutamate-induced neurotoxicity and reactive oxygen species (ROS) generation in the murine hippocampal HT22 cell line. Also, xanthorrhizol inhibited H2O2-induced lipid peroxidn. in rat brain homogenates. The properties of xanthorrhizol as an antiinflammatory agent were investigated in microglial activation by lipopolysaccharide. It reduced the expression of cyclooxygenase-2 and the inducible nitric oxide synthase, which consequently resulted in the reduction of nitric oxide. The production of proinflammatory cytokines, such as interleukin-6 and tumor necrosis factor-α in activated microglial cells, was reduced by xanthorrhizol. These results suggest that xanthorrhizol could be an effective candidate for the treatment of Alzheimer's disease- and other neurol. disease-related ROS and inflammation.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:639295 CAPLUS
DOCUMENT NUMBER: 143:146100
TITLE: Xanthorrhizol induces apoptosis via the up-regulation of Bax and p53 in HeLa cells
AUTHOR(S): Ismail, Norzila; Pihie, Azimahtol Hawariah Lope; Nallapan, Meenakshii
CORPORATE SOURCE: School of Bioscience and Biotechnology, Faculty of Science and Technology, National University of Malaysia, Selangor, 43600, Malay.
SOURCE: Anticancer Research (2005), 25(3B), 2221-2227
CODEN: ANTRD4; ISSN: 0250-7005
PUBLISHER: International Institute of Anticancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Xanthorrhizol is a sesquiterpenoid compound extracted from Curcuma xanthorrhiza, which is known locally as Temulawak. Traditionally, C. xanthorrhiza was found to have antibacterial, anticancer and anti-inflammatory activity. The rhizome has also been used to treat inflammation in postpartum uterine bleeding. An antiproliferative assay using methylene blue staining revealed that xanthorrhizol inhibited the proliferation of the cervical cancer cell line HeLa with an EC50 value of 6.16 μg/mL. Xanthorrhizol significantly increased apoptosis in HeLa cells, as evaluated by the Tdt-mediated dUTP nick end-labeling (TUNEL) assay and nuclear morphol. by Hoechst 33258 staining. Western blot anal., which was further confirmed by the immunostaining results, implied an up-regulation of tumor suppressor protein p53 and the pro-apoptotic protein Bax, following the treatment with xanthorrhizol. Xanthorrhizol, however, did not affect the expression of the anti-apoptotic protein, Bcl-2 and the viral oncoprotein, E6. Hence, xanthorrhizol is a promising antiproliferative and anticancer agent which induces p53 and Bax-dependent apoptosis in HeLa cervical cancer cells.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:333243 CAPLUS
DOCUMENT NUMBER: 143:90902
TITLE: Phosphorylation of c-Jun N-terminal Kinases (JNKs) is involved in the preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity
AUTHOR(S): Hong, Kyoung Ok; Hwang, Jae Kwan; Park, Kwang-Kyun; Kim, Seong Hwan
CORPORATE SOURCE: Department of Oral Biology, College of Dentistry, Yonsei University, Seoul, 120-749, S. Korea
SOURCE: Archives of Toxicology (2005), 79(4), 231-236
CODEN: ARTODN; ISSN: 0340-5761
PUBLISHER: Springer GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cisplatin is a potent anti-cancer chemotherapeutic agent but has the undesirable side effect of hepatotoxicity at high doses. In a previous study, abrogation of cisplatin-induced hepatotoxicity by pretreatment with xanthorrhizol was observed in mice, but the mechanism has not yet been studied. We therefore investigated whether the protective effect of xanthorrhizol on cisplatin-induced hepatotoxicity is associated with the mitogen-activated protein (MAP) kinase-signaling pathway. Cisplatin caused phosphorylation of both c-Jun N-terminal kinases 1/2 (JNK1/2) and the extracellular signal-regulated kinase 1/2 (ERK1/2), but not that of p38. However, cisplatin-induced phosphorylation of JNKs, especially JNK1, was highly attenuated by pretreatment with xanthorrhizol in a dose-dependent manner. This study suggested that the phosphorylation of JNKs could be involved in the protective effect of xanthorrhizol on cisplatin-induced hepatotoxicity and it also affects gene transcription by regulating the expression of transcription factor subunits such as c-fos and p50 in part. In addition, considering that the expression of both cytochrome c and caspase-9 were not changed in this model, its mechanism might be independent of mitochondria-related apoptosis. This is the first report giving evidence that the physiol. function of xanthorrhizol is linked to regulation of the phosphorylation of JNK(s).
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:1156473 CAPLUS
DOCUMENT NUMBER: 142:86624
TITLE: Composition containing toxic cancer chemotherapeutic agent and a suppressant of toxicity
INVENTOR(S): Park, Kwang-Kyun; Chung, Won-Yoon; Hong, Gyoung-Ok; Hwang, Jae-Kwan
PATENT ASSIGNEE(S): Biocare Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004112764	A1	20041229	WO 2004-KR1526	20040624
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,				

NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

KR 2005001392	A	20050106	KR 2004-47368		20040624
CN 1842326	A	20061004	CN 2004-80024279		20040624
JP 2007521260	T	20070802	JP 2006-516944		20040624
US 20060148908	A1	20060706	US 2005-562412		20051223
PRIORITY APPLN. INFO.:			KR 2003-40937	A	20030624
			WO 2004-KR1526	W	20040624

AB Disclosed are a suppressant of toxicity such as hepatotoxicity and nephrotoxicity, induced by cancer chemotherapeutic agent, and a composition of cancer chemotherapeutic agent containing the suppressant. The suppressant of toxicity induced by a cancer chemotherapeutic agent contains xanthorrhizol as an active ingredient. Xanthorrhizol shows an excellent ability in suppressing ill effects generated by dosage of cancer chemotherapeutic agent, such as hepatotoxicity and nephrotoxicity.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:980654 CAPLUS
DOCUMENT NUMBER: 142:233316
TITLE: Antiinflammatory composition containing xanthorrhizol
INVENTOR(S): Hwang, Jae Gwan; Jung, Won Yun; Lee, Sang Guk; Park, Kwang Kyun
PATENT ASSIGNEE(S): Biocare Co., Ltd., S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2003055202	A	20030702	KR 2003-34189	20030528
PRIORITY APPLN. INFO.:			KR 2003-34189	20030528

AB A pharmaceutical composition containing xanthorrhizol which inhibits the mutation in the body and induces apoptosis of cancer cells is provided. The xanthorrhizol alleviates or reduces inflammation by inhibiting COX-2 and iNOS activity and the composition containing xanthorrhizol can be used for prevention and treatment of cancer and inflammation. A pharmaceutical composition contains xanthorrhizol of the formula 1 as an active ingredient and addnl. a pharmaceutically acceptable carrier or diluent. The xanthorrhizol alleviates or reduces inflammation by inhibiting COX-2 and iNOS activity and inhibits carcinogenesis by increasing quinone reductase activity as detoxification enzyme of carcinogen. The xanthorrhizol is a sesquiterpene-based compound and can be separated from Curcuma xanthorrhiza Roxb.

L4 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:317353 CAPLUS
DOCUMENT NUMBER: 140:417878
TITLE: Abrogation of cisplatin-induced hepatotoxicity in mice by xanthorrhizol is related to its effect on the regulation of gene transcription

AUTHOR(S): Kim, Seong Hwan; Hong, Kyoung Ok; Chung, Won-Yoon; Hwang, Jae Kwan; Park, Kwang-Kyun
CORPORATE SOURCE: Brain Korea 21 project for Medical Science, Yonsei University, Seoul, 120-752, S. Korea
SOURCE: Toxicology and Applied Pharmacology (2004), 196(3), 346-355
CODEN: TXAPA9; ISSN: 0041-008X
PUBLISHER: Elsevier Science
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Cisplatin is a widely used anticancer drug, but at high dose, it can produce undesirable side effects such as hepatotoxicity. Because Curcuma xanthorrhiza Roxb. (Zingiberaceae) has been traditionally used to treat liver disorders, the protective effect of xanthorrhizol, which is isolated from C. xanthorrhiza, on cisplatin-induced hepatotoxicity was evaluated in mice. The pretreatment of xanthorrhizol (200 mg/kg/day, po) for 4 days prevented the hepatotoxicity induced by cisplatin (45 mg/kg, i.p.) with statistical significance. Interestingly, it abrogated cisplatin-induced DNA-binding activity of nuclear factor-kappaB (NF-κB), which consequently affected mRNA expression levels of NF-κB-dependent genes, inducible nitric oxide synthase (iNOS), and cyclooxygenase-2 (COX-2), even in part. It also attenuated the cisplatin-suppressed DNA-binding activity of activator protein 1 (AP-1). Using differential display reverse transcription-polymerase chain reaction (DDRT-PCR), seven upregulated genes including S100 calcium binding protein A9 (S100A9) mRNA and antigenic determinant for rec-A protein mRNA and five downregulated genes including caseinolytic protease X (ClpX) mRNA and ceruloplasmin (CP) mRNA by cisplatin were identified. Although these mRNA expression patterns were not totally consistent with gel shift patterns, altered expression levels by cisplatin were reversed by the pretreatment of xanthorrhizol. In conclusion, the ability of xanthorrhizol to regulate the DNA-binding activities of transcription factors, NF-κB and AP-1, could be one possible mechanism to elucidate the preventive effect of xanthorrhizol on cisplatin-induced hepatotoxicity. Furthermore, genes identified in this study could be helpful to understand the mechanism of cisplatin-induced hepatotoxicity. Finally, the combination treatment of xanthorrhizol and cisplatin may provide more advantage than single treatment of cisplatin in cancer therapy.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:813912 CAPLUS
DOCUMENT NUMBER: 137:304826
TITLE: Xanthorrhizol-containing pharmaceutical composition for preventing and treating cancer and treating an inflammation
INVENTOR(S): Park, Kwang-Kyun; Hwang, Jae-Kwan; Lee, Sang-Kook; Chung, Won-Yoon
PATENT ASSIGNEE(S): Biocare Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083114	A1	20021024	WO 2002-KR496	20020322
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

KR 2002074937	A	20021004	KR 2001-15027			20010322
AU 2002243045	A1	20021028	AU 2002-243045			20020322
JP 2004523595	T	20040805	JP 2002-580918			20020322
JP 3992621	B2	20071017				
CN 1527703	A	20040908	CN 2002-807016			20020322
US 20050261162	A1	20051124	US 2003-472780			20030922
PRIORITY APPLN. INFO.:			KR 2001-15027		A	20010322
			WO 2002-KR496		W	20020322

AB The present invention relates to a pharmaceutical composition containing xanthorrhizol as an active principle for preventing and treating cancer and treating inflammation. Xanthorrhizol not only inhibits mutagenesis and tumor formation and enhances the activity of detoxification enzyme of carcinogen, such as procaspase 3 and quinone reductase, it also induces apoptosis of cancer cell, and suppresses the activity of COX-2 and iNOS which are related to tumor promotion and inflammatory reaction.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER:	2002:541999 CAPLUS
DOCUMENT NUMBER:	138:117397
TITLE:	Suppressive effect of natural sesquiterpenoids on inducible cyclooxygenase (COX-2) and nitric oxide synthase (iNOS) activity in mouse macrophage cells
AUTHOR(S):	Lee, Sang Kook; Hong, Chai-Hee; Huh, Sun-Kyung; Kim, Sun-Sook; Oh, O-Jin; Min, Hye-Young; Park, Kwang-Kyun; Chung, Won-Yoon; Hwang, Jae-Kwan
CORPORATE SOURCE:	College of Pharmacy, Ewha Womans University, Seoul, S. Korea
SOURCE:	Journal of Environmental Pathology, Toxicology and Oncology (2002), 21(2), 141-148 CODEN: JEPOEC; ISSN: 0731-8898
PUBLISHER:	Begell House, Inc.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB Prostaglandins and nitric oxide produced by inducible cyclooxygenase (COX-2) and nitric oxide synthase (iNOS), resp., have been implicated as important mediators in the processes of inflammation and carcinogenesis. These potential COX-2 and iNOS inhibitors have been considered as antiinflammatory and cancer chemopreventive agents. In this study, we investigated the effect of natural sesquiterpenoids isolated from plants of the Zingiberaceae family on the activities of COX-2 and iNOS in cultured lipopolysaccharide (LPS)-activated mouse macrophage cell RAW 264.7 to discover new lead compds. as COX-2 or iNOS inhibitors. Xanthorrhizol, a sesquiterpenoid, isolated from the rhizome of Curcuma xanthorrhiza Roxb. (Zingiberaceae), exhibited a potent inhibition of COX-2 (IC50 = 0.2 μg/mL) and iNOS activity (IC50 = 1.0 μg/mL) in the assay system of prostaglandin E2 (PGE2) accumulation and nitric oxide production, resp. Western blot analyses revealed that the inhibitory potential of xanthorrhizol on the COX-2 activity coincided well with the suppression of COX-2 protein expression in LPS-induced macrophages. In addition, sesquiterpenoids β-turmerone and ar-turmerone isolated from the rhizome of Curcuma zedoaria Roscoe (Zingiberaceae) also showed a potent inhibitory activity of COX-2 (β-turmerone, IC50 = 1.6 μg/mL;

ar-turmerone, IC50 = 5.2 μg/mL) and iNOS (β-turmerone, IC50 = 4.6 μg/mL; ar-turmerone, IC50 = 3.2 μg/mL). These results suggest that natural sesquiterpenoids from C. xanthorrhiza and C. zedoaria might be lead candidates for further developing COX-2 or iNOS inhibitors possessing cancer chemopreventive or anti-inflammatory properties.
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:799545 CAPLUS
DOCUMENT NUMBER: 136:263277
TITLE: New bioactive derivatives of xanthorrhizol
AUTHOR(S): Aguilar, Maria Isabel; Delgado, Guillermo; Villarreal, Maria Luisa
CORPORATE SOURCE: Departamento de Farmacia, Conjunto "E" de la Facultad de Quimica. Universidad Nacional Autonoma de Mexico, Mexico, 04510, Mex.
SOURCE: Revista de la Sociedad Quimica de Mexico (2001), 45(2), 56-59
CODEN: RSQMAN; ISSN: 0583-7693
PUBLISHER: Sociedad Quimica de Mexico
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:263277
AB The chemical preparation and the antifungic and cytotoxic evaluations of several new derivs. of xanthorrhizol, a bioactive natural product isolated from certain plants used in traditional medicine, are described. Acylation of the phenol, bromination of the benzene ring, as well as reduction and oxidation of the olefin of the natural sesquiterpene, allowed obtaining a series of derivs. which displayed mild antifungic activities and did not show cytotoxic activities toward certain human tumor cell lines.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2006:175458 USPATFULL
TITLE: Supressant of toxicity induced by cancer chemotherapeutic agent and composition of cancer chemotherapeutic agent containing the same
INVENTOR(S): Park, Kwang-Kyun, Seoul, KOREA, REPUBLIC OF
Chung, Won-Yoon, Seoul, KOREA, REPUBLIC OF
Hong, Gyoung-Ok, Seoul, KOREA, REPUBLIC OF
Hwang, Jac-Kwan, Gyeonggi-do, KOREA, REPUBLIC OF

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2006148908	A1	20060706	
APPLICATION INFO.:	US 2004-562412	A1	20040624	(10)
	WO 2004-KR1526		20040624	
			20051223	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	KR 2003-40937	20030624

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: JONES DAY, 222 EAST 41ST ST, NEW YORK, NY, 10017, US
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 744
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are a suppressant of toxicity such as hepatotoxicity and nephrotoxicity, induced by cancer chemotherapeutic agent, and a composition of cancer chemotherapeutic agent containing the suppressant. The suppressant of toxicity induced by a cancer chemotherapeutic agent contains xanthorrhizol as an active ingredient. Xanthorrhizol shows an excellent ability in suppressing ill effects generated by dosage of cancer chemotherapeutic agent, such as hepatotoxicity and nephrotoxicity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 14 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2005:299493 USPATFULL
TITLE: Pharmaceutical composition for preventing and treating cancer and treating an inflammation
INVENTOR(S): Park, Kwang-Kyun, Seoul, KOREA, REPUBLIC OF
Hwang, Jae-Kwan, Gyeonggi-do, KOREA, REPUBLIC OF
Lee, Sang-Kook, Seoul, KOREA, REPUBLIC OF
Chung, Won-Yoon, Seoul, KOREA, REPUBLIC OF

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005261162	A1	20051124	
APPLICATION INFO.:	US 2003-472780	A1	20020322	(10)
	WO 2002-KR496		20020322	
			20030922	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	KR 2001-15027	20010322

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: JONES DAY, 222 EAST 41ST ST, NEW YORK, NY, 10017, US
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1-2
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 668
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to a pharmaceutical composition preventing cancer and treating cancer and inflammation, which is characterized in that including xanthorrhizol as an active principle. Xanthorrhizol not only inhibits mutagenesis and tumor formation, and enhances the activity of detoxification enzyme of carcinogen, induces apoptosis of cancer cell, and suppresses the activity of COX-2 and iNOS which are related to tumor promotion and inflammatory reaction. Thus, a pharmaceutical composition including xanthorrhizol can be utilized for prevention of cancer and treatment of cancer and inflammation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 15 OF 15 USPATFULL on STN
ACCESSION NUMBER: 2005:182869 USPATFULL
TITLE: Method and compositions for oral hygiene
INVENTOR(S): Romanowski, Radek, Komoka, CANADA
Emily, Peter, Lakewood, CO, UNITED STATES
Alkemade, Stan, Arva, CANADA

	NUMBER	KIND	DATE

PATENT INFORMATION: US 2005158252 A1 20050721
APPLICATION INFO.: US 2004-18851 A1 20041221 (11)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-532303P	20031222 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, ATLANTA, GA, 30309, US
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 1127
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention comprises novel compositions and methods for oral hygiene and for treating and preventing oral disease in humans and in animals. In one embodiment, the novel compositions of the present invention comprise a unique oral hygiene solution that can be added to drinking water. The invention provides compositions and methods for maintaining oral health that are convenient to use and are formulated so that they are safe for regular use by humans and animals.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	186.65	199.62
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-16.80	-16.80

FILE 'STNGUIDE' ENTERED AT 09:32:02 ON 25 APR 2008
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Apr 18, 2008 (20080418/UP).

=> d his

(FILE 'HOME' ENTERED AT 09:08:43 ON 25 APR 2008)

FILE 'REGISTRY' ENTERED AT 09:08:59 ON 25 APR 2008
E "XANTHORRHIZOL"/CN 25
L1 1 S E3
L2 1 S L1 EXA SAM

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 09:09:39 ON 25 APR 2008
L3 122 S L2
L4 15 S L3 AND (CANCER OR TUMOR)
L5 1 S L4 AND PLATINUM
L6 5 S L4 AND CISPLATIN
L7 7 S L3 AND (CISPLATIN OR CARBOPLATIN OR OXALIPLATIN OR NEDAPLATIN

FILE 'STNGUIDE' ENTERED AT 09:32:02 ON 25 APR 2008

=>

---Logging off of STN---

=>
Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.18	199.80
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-16.80

STN INTERNATIONAL LOGOFF AT 09:34:06 ON 25 APR 2008